

LA-UR-22-32462

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Title: The 1958 Nuclear Test Moratorium

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Intended for: For inclusion in the NSRC Atmospheric Test History

Issued: 2022-11-30



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The 1958 Nuclear Test Moratorium

Roger A. Meade

Against the backdrop of international concern about radioactive fallout, the United States, the Soviet Union, and Great Britain agreed to a moratorium on nuclear testing. Neither monitored nor enforceable, the moratorium was not much more than a gentleman's agreement. Nonetheless, it proved remarkably durable, beginning on October 31, 1958, and lasting until September 1961. After France began nuclear testing in 1960, followed by the shooting down of an American U-2 spy plane over Soviet air space, and a failed summit meeting of international leaders, the Soviet Union resumed testing. The United States followed shortly thereafter.¹

Concerns about fallout and its health effects emerged in the wake of Hiroshima and Nagasaki and intensified with the 1946 publication of John Hersey's *Hiroshima*.² When Castle-Bravo's fallout injured the Marshallese natives of Rongelap and Utirik Atolls and the crew of the Japanese tuna boat, Lucky Dragon, that concern grew exponentially. The Marshallese, heretofore silent, complained to the United Nations, its legal protector, about the damage to its people and islands. In Japan, Bravo's fallout brought back the psychological horrors of Hiroshima and Nagasaki. Adding to the nation's trauma, its tuna market collapsed.³ India argued before the United Nations that the United States did not have the right to use the Marshall Islands for nuclear testing "in the same way as New Mexico."⁴

¹ The Soviet Union suspended testing on November 3rd. Shelton, Frank H. *Reflections of a Nuclear Weaponeer*. Colorado Springs: Shelton Enterprises, 1988, 10-1. William Ogle, "Comments on the Test Ban Treaty," Talk before the Aspen Institute for Humanistic Studies, 1964. And, Eugene Rabinowitch, *Nuclear Bomb Tests*, *Bulletin of Atomic Scientists*, October 1958, pp. 282-287.

² Hersey, John. *Hiroshima*. New York: Alfred A. Knopf, Inc., 1946.

³ Even the United States refused to import Japanese tuna.

⁴ *New York Times*, July 9, 1954. Indian involvement ultimately led to the coalition of the non-aligned countries.

Responding to the international outcry following Bravo, Secretary of State John Foster Dulles asked the Atomic Energy Commission to comment on the ramifications should testing be suspended. The AEC believed that a moratorium “would jeopardize weapon programs and jeopardize laboratory budgets: ... and, “once a moratorium was accepted, strong public opinion would probably prevent resumption of testing unless the United States was overtly provoked by a foreign country.”⁵ Norris Bradbury and Edward Teller told the AEC that “technical advice is, in the main, negative.” A moratorium on testing, particularly one of long duration, would freeze the current state of knowledge causing both laboratories to wither as scientific institutions. Bradbury and Teller also distrusted the Soviets. Without a technical means of monitoring Soviet compliance, the Soviets could hide nuclear tests and advance their weapons program. They believed that “any agreement would be rigorously observed by ourselves whereas it might be circumvented or at an appropriate moment openly violated by Russia.”⁶

Although Dulles’ took no further action, the idea of a test moratorium continued to percolate throughout the Eisenhower presidency. Four years later, after the completion of Hardtack I, Eisenhower told Norris Bradbury that “the United States will suspend nuclear weapons tests for a period of twelve months and, under certain conditions of progress toward real disarmament, continue that suspension on a year-to-year basis.”⁷ Eisenhower had three reasons for announcing a moratorium. First, and perhaps foremost, radioactive contamination, especially in food sources, was a growing concern in the United States. Second, he believed that the danger of nuclear warfare could not be reduced without a cessation of testing. Third, data from Hardtack I convinced

⁵ Eisenhower, Dwight D. *Waging Peace: The White House Years, A Personal Account 1956-1961*. New York: Doubleday and Company, 1965, 389.

⁶Edward Teller and Norris Bradbury, *Memorandum for the General Manager, USAEC*, June 11, 1954. Eisenhower, 224.

⁷ President Dwight Eisenhower to Norris Bradbury, August 22, 1958.

both U.S. and British scientists that there were sufficient technical means of monitoring compliance.⁸

Although the President's announcement did not come as a surprise, the Atomic Energy Commission had not prepared concrete plans for dealing with a suspension of testing. AEC commissioner W.F. Libby simply suggested Los Alamos mark time by analyzing the data gathered during recent operations. Libby also suggested that Bradbury make plans to reorganize Los Alamos to keep the Laboratory in "the best scientific trim." By that, Libby meant that Bradbury should promote pure research or pursue other activities that would keep the scientific staff engaged.⁹ In response, Los Alamos turned its expertise to the design of nuclear reactors for interstellar rockets in a program called Rover. The Laboratory also explored the use of nuclear explosions in an early form of fracking. The huge amount of data generated by the Hardtack tests was largely unused with the exception of the that related to a safety flaw discovered during the last days before the moratorium.

When the United States resumed testing, both Los Alamos and the UCRL essentially picked up where they had left off, with two exceptions. First, the Pacific Proving Ground had been abandoned, forcing the United States to seek an alternative Pacific site for Operation Dominic. Second, underground testing was fast becoming the test venue of choice. Both changes were driven by sustained public concern about fallout and its effects on humans.¹⁰

Little significance is attached to the moratorium. It was, after all, little more than a gentlemen's' agreement, However, it should be remembered as the first successful instance of

⁸ Eisenhower, 274-275 and Hacker, Barton C. *Elements of Controversy: The Atomic Energy Commission and Radiation Safety in Nuclear Weapons Testing, 1947-1974*. Berkeley: University of California Press, 1994, 198.

⁹ United States Atomic Energy Commission and United States Department of Defense, *Press Release*, August 29, 1958.

¹⁰ William Ogle, *Return to Testing*, 117.

superpower cooperation to curb nuclear testing and as the genesis of the 1963 Limited Test Ban Treaty. The moratorium also was the harbinger of the world now faced by the United States and its nuclear weapons laboratories in the absence of testing.¹¹

¹¹ The Soviet Union ended testing in 1990 and the United States in 1992.